U. S. DEPARTMENT OF COMMERCE
JESSE H. JONES, Secretary
NATIONAL BUREAU OF STANDARDS
LYMAN J. BRIGGS, Director

ELECTRIC SUPPLEMENTARY DRIVING AND PASSING LAMPS FOR VEHICLES (AFTER MARKET)

COMMERCIAL STANDARD CS97–42

Effective Date for New Production from January 8, 1942

A RECORDED VOLUNTARY STANDARD
OF THE TRADE

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PROMULGATION

of

COMMERCIAL STANDARD CS97–42

for

ELECTRIC SUPPLEMENTARY DRIVING AND PASSING LAMPS FOR VEHICLES (AFTER MARKET)

On June 17, 1941, the Safety Equipment Manufacturers Association submitted a Proposed Commercial Standard for Electric Supplementary Driving and Passing Lamps for Vehicles (After Market). Following some adjustments and approval by the Standing Committee on Lamps and Signal Equipment for Vehicles, the standard was circulated on October 22, 1941, to consumer and distributor organizations, testing laboratories, and manufacturers for written approval. Those concerned have since accepted and approved for promulgation by the United States Department of Commerce, through the National Bureau of Standards, the standard as shown herein.

The standard is effective for new production from January 8, 1942.

Promulgation recommended.

I. J. Fairchild,
Chief, Division of Trade Standards.

Promulgated.

Lyman J. Briggs,
Director, National Bureau of Standards.

Promulgation approved.

Jesse H. Jones,
Secretary of Commerce.

ELECTRIC SUPPLEMENTARY DRIVING AND PASSING LAMPS FOR VEHICLES (AFTER MARKET)[1]

COMMERCIAL STANDARD CS97–42

EXPLANATORY

As the art of motor-vehicle lighting is a continually developing one, these specifications are necessarily of a current character and are subject to revision from time to time. They are intended to apply primarily to sample equipment submitted by the manufacturer to the testing laboratory for original approval but may be applied to equipments purchased on the open market or to equipments taken at random from regular production. Should the first sample fail to pass one or more of the test requirements, two more samples may be tested, and, if two out of the three samples comply with each of the requirements, the equipment shall be considered to be satisfactory.

PURPOSE

1. The purpose is to establish standard specifications and methods of test for supplementary driving and passing lamps (after market) for the guidance of manufacturers, distributors, and users.

SCOPE

2. This standard covers the requirements and methods for construction, vibration and shock, moisture, dust, corrosion, and photometric tests of supplementary driving and passing lamps.

DEFINITIONS

3. Supplementary *driving* lamps are lamps used to supplement the upper or country beam from headlamps other than sealed beam. They are not intended for use alone or with the lower, or traffic, beam.

4. Supplementary *passing* lamps are lamps intended to supplement the lower, or traffic, beam from headlamps, including sealed beam.

GENERAL REQUIREMENTS

5. The light from a supplementary driving or passing lamp shall be white.

6. A white lens shall be a lens the color of which, under service conditions, employing a light source having the quality of International Commission on Illumination (ICI) illuminant *A* (incandescent

[1] The term "after market" shall be construed to mean any equipment or device manufactured for accessory installation on a vehicle; provided, however, it shall not be construed to mean any equipment or device regularly installed on or furnished for new vehicles by the vehicle manufacturer, and provided further, that it shall not be construed to include genuine replacements of original equipment.

lamp at 2,848° K), has values of x and y, neither of which differs from those of illuminant A by more than ± 0.01, x and y being trichromatic coefficients derived on the basis of the 1931 ICI standard observer and coordinate system.

7. The screws or other means provided for attaching the cover to the body of the unit shall be of stainless steel or nonferrous metal.

8. All wire used shall be stranded copper, conforming to Society of Automotive Engineers (SAE) standard specifications known as Type No. 2 or better, and shall have an electrical resistance not in excess of 4.71 ohms per 1,000 feet at 68° F or shall have a cross-sectional area of not less than 2,361 circular mils.

INSTALLATION INSTRUCTIONS

9. *Driving lamps.*—Complete instructions for installing supplementary driving lamps shall accompany each lamp, including a comprehensive wiring diagram so designed that the supplementary driving lamps can be turned on only when the upper-, or country-, beam lights are turned on and will be turned off when the headlight beam is deflected to the lower, or traffic, beam. The type and designation of the bulb shall also be stated. Aiming instructions shall be in accordance with aim required for photometric tests.

10.—*Passing lamps.*—Complete instructions for installing supplementary passing lamps shall accompany each lamp, including a comprehensive wiring diagram so designed that the supplementary passing lamps can be turned on only when the lower-, or traffic-, beam lights are turned on and will be turned off when the headlight beam is switched to the upper, or country, beam. The type and designation of the bulb shall also be stated. Aiming instructions shall be in accordance with aim required for photometric tests.

LAMP BULBS

11. Lamp bulbs used in supplementary driving and passing lamps shall be of American manufacture. The physical and electrical characteristics of the bulbs used in supplementary driving and passing lamps shall be in accordance with the current standard SAE or Safety Equipment Manufacturers Association (SEMA) specifications for such bulbs.

SAMPLES FOR TEST

12. Sample supplementary driving and passing lamps submitted for laboratory test shall be representative of the devices as regularly manufactured and marketed. Each sample shall include all accessory equipment peculiar to the device and necessary to operate it in normal manner. The vibration and shock, moisture, and dust (where required) tests shall be made on the same sample in that order.

13. All bulbs used in the photometric tests shall be selected for accuracy in accordance with the standard SAE specifications covering lamp bulbs and be operated at their rated mean spherical candlepower during the tests. Unless otherwise specified, the lamp bulbs used in the tests shall be supplied by the laboratory and shall be representative of standard bulbs in regular production. Where special bulbs are specified, they shall be submitted with the device, and the same or similar bulbs used in the tests and operated at their rated mean spherical candlepower.

LABORATORY FACILITIES

14. All laboratory tests shall be made by a recognized, impartial engineering laboratory having all facilities and equipment necessary to make accurate physical and optical tests herein specified in accordance with established laboratory practices.

VIBRATION AND SHOCK TEST

15a. A sample unit, as mounted on the support or supports supplied, shall be bolted to the anvil end of the table of the vibration rack and vibrated approximately 750 times per minute through a distance of ¼ inch. The table shall be spring-mounted at one end and fitted with steel calks on the under side of the other end. These calks are to make contact with the steel anvil once during each cycle at the completion of the fall. The rack shall be operated under a spring tension of 60 to 70 pounds. These tests shall be continued for 1 hour.

15b. The unit shall then be examined. Any unit showing evidence of material physical weakness, lens rotation, or loosening or rupture of parts shall be considered to have failed. Failure of the bulb shall not be considered as failure of the unit.

15c. It is recommended that for the purpose of standardizing the vibration and shock test, the testing machine shall be made substantially in accordance with figure 1.

MOISTURE TEST

16a. A sample unit shall be mounted in its normal operating position with any drain holes open and subjected to a precipitation of 0.1 inch of water per minute, delivered at an angle of 45 degrees from a nozzle with a solid cone spray. During the moisture test, the lamp shall revolve about its vertical axis at a rate of 4 rpm. This test shall be continued for 12 hours. The water shall then be turned off and the unit permitted to drain for 1 hour.

16b. The unit shall then be examined. Any accumulation of more than 1 milliliter of water in the unit, or warpage or shrinkage of the lens shall constitute a failure.

DUST TEST

17a. Where composite (reflector-lens) lighting units are used, the dust test shall not be required.

17b. A sample unit, with any drain holes closed, shall be mounted in its normal operating position, at least 6 inches from the wall in a box measuring 3 feet in all directions, containing 10 pounds of fine powdered cement in accordance with ASTM Specifications C150–41. At intervals of 15 minutes, this dust shall be agitated by compressed air or fan blower by projecting blasts of air for a 2-second period in a downward direction into the dust in such a way that the dust is completely and uniformly diffused throughout the entire cube. The dust is then allowed to settle. This test shall be continued for 5 hours.

17c. After the dust test, the exterior surface shall be cleaned, and if the maximum candlepower is within 10 percent of the maximum, as compared with the condition after the unit is cleaned inside and out, it shall be considered adequately dust tight.

CORROSION TEST

18a. A sample unit, including mounting bracket, if any, shall be subjected to a 20-percent salt-spray solution for a period of fifty (50) hours, consisting of two (2) periods of 24 hours' exposure and 1 hour's drying each, at a temperature of 95° F (35° C).

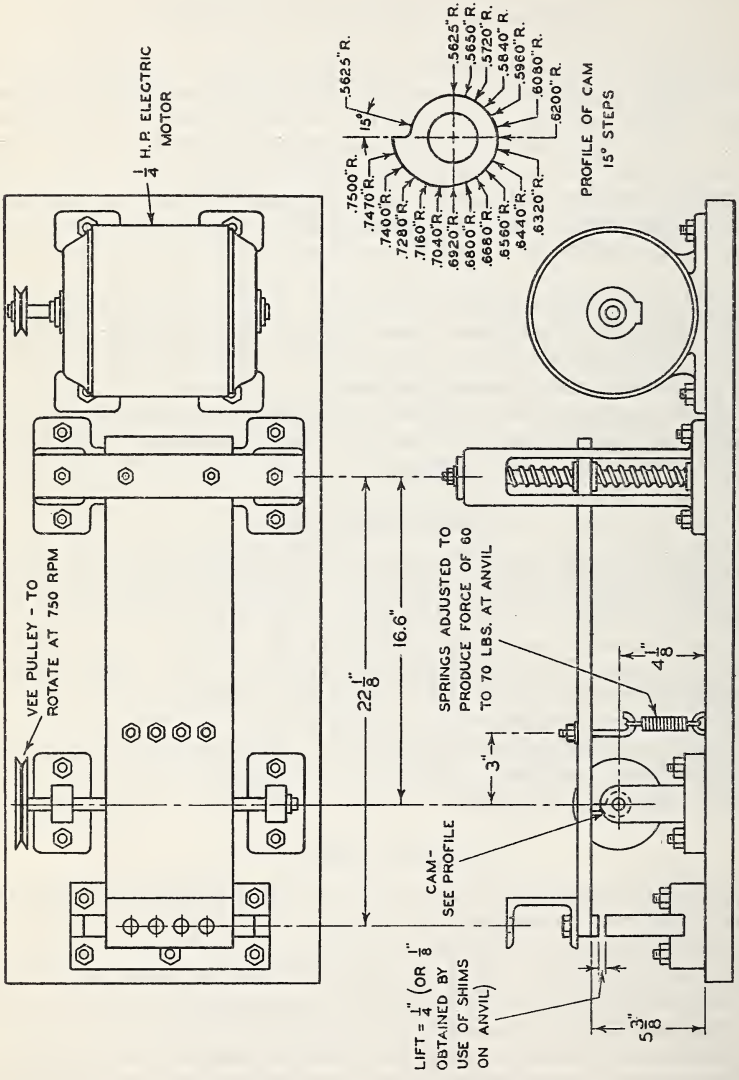

FIGURE 1.—*Vibration and shock-testing machine.*

18b. There shall be no evidence of undue or excessive corrosion immediately after the above test has been completed.

PHOTOMETRIC TESTS

19a. Photometric tests shall be made with the photometer at a distance of at least 60 feet from the lamp.

19b. *At-focus tests.*—The light source shall be located in the designed position, as specified by the manufacturer.

19c. The beam from the lamp shall be aimed vertically with reference to the horizontal line through the photometer axis, as specified by the manufacturer.

19d. The beam from the lamp shall be aimed laterally with reference to the vertical center line through the photometer axis in the same manner as the manufacturer specifies that it be aimed on the car with respect to the vertical center line ahead of the lamp.

19e. *Driving lamps.*—Candlepower values shall be recorded at 1-degree intervals for all points within the angles bounded by *3U, 4D, 12L,* and *12R,* except that in the cases of beams which are symmetrical laterally, the complete distribution may be recorded for the left half only.

19f. *Passing lamps.*—Candlepower values shall be recorded at 1-degree intervals for all points within the angles bounded by *2U, 1 1/2D, 12L,* and *12R,* except that in the cases of beams which are symmetrical laterally, the complete distribution may be recorded for the left half only.

19g. In case of reexamination test, the candlepower values shall be taken at the specific test points only and in the at-focus position only.

19h. The driving [2] and passing [3] lamps shall meet the current photometric requirements of the IES, SAE, and SEMA (Illuminating Engineering Society, Society of Automotive Engineers, and Safety Equipment Manufacturers Association).

19i. In locating the test points, the following nomenclature shall apply. The line formed by the intersection of the median vertical plane parallel to the lamp axis and the test screen is designated as *V.* The line formed by the intersection of the horizontal plane through the lamp centers and the test screen is designated as *H.* The point

[2] *Driving lamps.*—The 1941 photometric requirements of the IES, SAE, and SEMA are as follows: The beam from the lamp should meet the following photometric specifications when it is aimed to center the maximum intensity on the photometer axis except that when the maximum exceeds 25,000 cp, the 25,000-cp point directly above the maximum intensity should be aimed at the photometer axis:

Line *3U, 3L* to *3R*	3,000 cp max.
Line *2U, 3L* to *3R*	5,000 cp max.
Line *1U, 3L* to *3R*	8,000 cp max.
H, V	15,000 to 25,000 cp.
H, 3L to *3R*	7,500 cp min.
1D, 6L to *6R*	2,500 cp min.
2D, 6L to *6R*	1,500 cp min.
Maximum anywhere	50,000 cp not lower than *1D.*

An aiming tolerance of ± ¼ degree should be allowed for manufacturing variations.

Out-of-focus tests on unsealed units.—Similar tests shall be made for each of four out-of-focus filament positions, except that the complete distribution may be omitted. Where conventional bulbs with two-pin bayonet bases are used, candlepower tests shall be made with the light source 0.060 inch above, below, ahead, and behind the designed position. If prefocused bulbs are used the limiting positions at which tests are made shall be 0.020 inch above, below, ahead, and behind the designed position.

The beam from each lamp may be reaimed in accordance with the instruction above for each of the out-of-focus positions of the light source.

[3] *Passing lamps.*—The 1941 photometric requirements of the IES, SAE, and SEMA are as follows: The beam from the lamp should meet the following photometric specifications when it is aimed in accordance with the manufacturers' service instructions:

1U, 1L to *L* and above	400 cp max.	*2U, 1R* to *R* and above	1,000 cp max.
1/2U, 1L to *L*	500 cp max.	*1U, 1R* to *R*	3,000 cp max.
1/2D, 1L to *L*	1,000 cp max.	*H, 1R* to *R*	7,000 cp max.
1 1/2D, 1L to *L*	3,000 cp max.	*1 1/2D, 2R* to *4R*	10,000 cp min.

An aiming tolerance of ± ¼ degree should be allowed on individual points.

Out-of-focus tests on unsealed units.—Similar tests shall be made for each of four out-of-focus filament positions, except that the complete distribution may be omitted. Where conventional bulbs with two-pin bayonet bases are used, candlepower tests shall be made with the light source 0.060 inch above, below, ahead, and behind the designed position. If prefocused bulbs are used, the limiting positions at which tests are made shall be 0.020 inch above, below, ahead, and behind the designed position.

The beam from the lamp may be reaimed in accordance with the instructions above for each of the out-of-focus positions of the light source.

at the intersection of these two lines is designated as *H–V*. The other points on the screen are designated by similar symbols to indicate the number of degrees of arc above or below *H* and the number of degrees of arc to the left or right of *V*, for example; *4D–3L* is a point 4 degrees below *H* and 3 degrees to the left of *V*, and *1U–V* is a point 1 degree above *H* in the median vertical plane; *1/2D–1L* is a point ½ degree below *H* and 1 degree to the left of *V*, and *1U–1L* is a point 1 degree above *H* and 1 degree to the left of the median vertical plane.

MARKING AND LABELING

20. Each supplementary driving lamp and passing lamp and lens manufactured and sold as conforming to this standard shall bear a distinctive designation prominently and permanently indicating the trade-mark of the manufacturer duly applied for or registered under the laws of the United States, or the trade name or other distinctive model, designation, or other means of identification.

21. In order to provide the purchaser with a ready means for distinguishing between supplementary driving lamps or passing lamps which meet the requirements of this standard and those which do not, the Safety Equipment Manufacturers Association has adopted the wording quoted below for labels or statements on cartons. The mark "SEMA APPROVED" on the lamps, and the lens where so specified, is based upon tests on samples and reexaminations by a recognized, impartial engineering laboratory. It illustrates a method of certifying that these items comply with the commercial standard.

> This supplementary driving lamp, marked SEMA APPROVED is certified by the Safety Equipment Manufacturers Association and by the manufacturer as conforming to Commercial Standard CS97–42.
>
> and
>
> This supplementary passing lamp, marked SEMA APPROVED is certified by the Safety Equipment Manufacturers Association and by the manufacturer as conforming to Commercial Standard CS97–42.

EFFECTIVE DATE

The standard is effective for new production from January 8, 1942.

STANDING COMMITTEE

The following individuals comprise the membership of the standing committee, which is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. Each organization nominated its own representatives. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Division of Trade Standards, National Bureau of Standards, which acts as secretary for the committee.

Manufacturers:

H. B. Donley (chairman), Columbus Metal Products, Inc., 767 North 4th St., Columbus, Ohio. Representing Safety Equipment Manufacturers Association.

A. B. Dettmer, K-D Lamp Co., 610 West Court St., Cincinnati, Ohio. Representing Safety Equipment Manufacturers Association.

J. Ralph Haines, Arrow Safety Device Co., Medford, N. J. Representing Safety Equipment Manufacturers Association.

Charles W. Anklam, C. M. Hall Lamp Co., 1035 E. Hancock Ave., Detroit, Mich. Representing Society of Automotive Engineers.

R. N. Falge, Guide Lamp Division, General Motors Corp., Anderson, Ind. Representing Society of Automotive Engineers.

William F. Little, Electrical Testing Laboratories, East End Ave. at 79th St., New York, N. Y. Representing Society of Automotive Engineers.

Distributors:

I. H. Post, National Automobile Dealers Association, 1026 17th St., N. W., Washington, D. C.

G. B. Cornwell, Sears, Roebuck & Co., Homan Ave. and Arthington St., Chicago, Ill. Representing Mail Order Association of America.

L. S. Jullien, L. S. Jullien, Inc., 1443 P St., N. W., Washington, D. C. Representing Motor & Equipment Wholesalers Association.

Users:

Charles G. Morgan, Jr., American Trucking Associations, Inc., 1424 16th St., N. W., Washington, D. C.

Leon F. Banigan, National Council of Private Motor Truck Owners, Inc., National Press Bldg., Washington, D. C.

National Association of Motor Bus Operators: New representative to be appointed.

Burton W. Marsh, American Automobile Association, Mills Building, 17th & Pennsylvania Ave., Washington, D. C.
Alternate: Earl Allgaier.

General Interest:

H. H. Allen, Interstate Commerce Commission, Washington, D. C.

H. H. Kelly, Interstate Commerce Commission, Washington, D. C. Representing Federal Interdepartmental Safety Council.
Alternate: H. H. Allen.

Frank W. Matson, Minnesota Railroad and Warehouse Commission, St. Paul, Minnesota. Representing National Association of Railroad and Utilities Commissioners.

J. J. Shanley, Department of Motor Vehicles, Trenton, N. J. Representing American Association of Motor Vehicle Administrators.

Laboratories:

Sydney V. James, Underwriters' Laboratories, Inc., 207 E. Ohio St., Chicago, Ill.

Monroe L Patzig, American Council of Commercial Laboratories, 2215 Ingersoll Ave., Des Moines, Iowa.

William F. Little, Electrical Testing Laboratories, East End Ave. at 79th St., New York, N. Y.
Alternate: Herman Koenig.

HISTORY OF PROJECT

Pursuant to the understanding reached at the general conference of January 11 and 12, 1940, on lamps and signal equipment, that additional specifications for similar items should be presented to the standing committee for establishment as commercial standards, the Safety Equipment Manufacturers Association submitted, under date of June 17, 1941, a Proposed Commercial Standard for Electric Supplementary Driving and Passing Lamps for Vehicles (After Market.).

The proposed standard was circulated on June 26, 1941, and on September 18, 1941, to the standing committee, and after some adjustments, including the instructions for installation, the draft was approved by a majority of the committee, On October 22, 1941, it was circulated to consumer and distributor organizations, testing laboratories, and manufacturers for written acceptance. Upon receipt of written acceptance from a preponderant majority, announcement was issued on December 8, 1941, that the standard would become effective for new production from January 8, 1942.

CS97–42

ACCEPTANCE OF COMMERCIAL STANDARD

If acceptance has not previously been filed, this sheet properly filled in, signed and returned will provide for the recording of your organization as an acceptor of this commercial standard.

Date_____

Division of Trade Standards,
National Bureau of Standards,
Washington, D. C.

Gentlemen:

Having considered the statements on the reverse side of this sheet, we accept the Commercial Standard CS97–42 as our standard of practice in the

Production [1] Distribution [1] Use [1] Testing [1]

of electric supplementary driving and passing lamps for vehicles.

We will assist in securing its general recognition and use, and will cooperate with the standing committee to effect revisions of the standard when necessary.

Signature of individual officer_____
(In ink)

(Kindly typewrite or print the following lines)

Name and title of above officer_____

Organization_____
(Fill in exactly as it should be listed)

Street address_____

City and State_____

[1] Please designate which group you represent by drawing lines through the other three. Please file separate acceptances for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade papers, colleges, etc., desiring to record their general approval, the words "in principle" should be added after the signature.

TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial standards are commodity specifications voluntarily established by mutual consent of those concerned. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the interested groups as a whole, their provisions through usage soon become established as trade customs, and are made effective through incorporation into sales contracts by means of labels, invoices, and the like.

2. *The acceptor's responsibility.*—The purpose of commercial standards is to establish for specific commodities nationally recognized grades or consumer criteria and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the commercial standard where practicable, in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function performed by the Department of Commerce in the voluntary establishment of commercial standards on a Nation-wide basis is fourfold: first, to act as an unbiased coordinator to bring all interested parties together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvass and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by a satisfactory majority of production or consumption in the absence of active, valid opposition, the success of the project is announced. If, however, in the opinion of the standing committee or the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

ACCEPTORS

The organizations and individuals listed below have accepted this standard as their standard of practice in the production, distribution, use and testing of electric supplementary driving and passing lamps. Such endorsement does not signify that they may not find it necessary to deviate from the standard, nor that producers so listed guarantee all of their products in this field to conform with the requirements of this standard. Therefore, specific evidence of conformity should be obtained where required.

ASSOCIATIONS

American Council of Commercial Laboratories, Des Moines, Iowa.
American Trucking Associations, Inc., Washington, D. C.
Indiana Automotive Maintenance Association, Inc., Indianapolis, Ind. (In principle.)
National Council of Private Motor Truck Owners, Inc., Washington, D. C.
National Council of Women of the U. S., Inc., New York, N. Y.
New York State Motor Truck Association, Inc., New York, N. Y.
Safety Equipment Manufacturers Association, Inc., New York, N. Y.

FIRMS

Aetna Motor Products Co., Boston, Dorchester District, Mass.
American Bantam Car Co., Butler, Pa.
Appleton Electric Co., Chicago, Ill.
Atlantic Greyhound Corporation, Charleston, W. Va.
Atlantic Refining Co., Philadelphia, Pa.
Auto Radiator Manufacturing Co., Chicago, Ill.
Autocar Co., The, Ardmore, Pa.
B & L Lamp Co., Erie, Pa. (In principle.)
Canadian Motor Lamp Co., Ltd., Windsor, Ontario, Canada.
Carlton Lamp Corporation, Newark, N. J.
Carpenter Body Works, Inc., Mitchell, Ind.
Central Co-operative Wholesale, Superior, Wis.
Clum Manufacturing Co., Milwaukee, Wis.
Coleman Motors Corporation, Littleton, Colo.
Colorado, Motor Vehicle Bureau of, Denver, Colo. (In principle.)
Colorado State Highway Department, Denver, Colo. (In principle.)
Columbus Metal Products, Inc., Columbus, Ohio.
Connecticut State Department of Motor Vehicles, Hartford, Conn.
Crescent Co., The, Pawtucket, R. I.
Culver Stearns Manufacturing Co., Worcester, Mass.
Delaware, Motor Vehicle Division of, Dover, Del.
Dietz Co., R. E., New York, N. Y.
Douglas Manufacturing Co., H. A., Bronson, Mich.
Dunwoody Industrial Institute, Minneapolis, Minn.
Electrical Testing Laboratories, New York, N. Y.
Engineering Advisory Service, Boston, Mass.
Federal Auto Products Co., Chicago, Ill.
"Fleet Owner" Magazine, New York, N. Y. (In principle.)
Fog-Master Co., The, Los Angeles, Calif.
Four Wheel Drive Auto Co., The, Clintonville, Wis.
General Motors Corporation, Delco-Remy Division, Anderson, Ind.
Hall Lamp Co., C. M., Detroit, Mich.
Hendrickson Motor Truck Co., Chicago, Ill.
Highway Trailer Co., Edgerton, Wis.
Iowa Department of Public Safety, Motor Vehicle Division, Des Moines, Iowa.
J & R Motor Supply Co., Chicago, Ill.
Jullien, Inc., L. S., Washington, D. C.
K–D Lamp Co., The, Cincinnati, Ohio.
Kenworth Motor Truck Corporation, Seattle, Wash.
Kilborn-Sauer Co., The, Fairfield, Conn.
Liberty Mirror Works, Brackenridge, Pa.

Louisiana Department of Highways, Baton Rouge, La.
Maine, Secretary of State of, Augusta, Maine.
Marlatt Battery & Manufacturing Co., Danville, Ill.
Maryland Casualty Co., Baltimore, Md. (In principle.)
Merit Automotive Products Co., Chicago, Ill.
Minnesota State Highway Department, St. Paul, Minn.
Minnesota Railroad & Warehouse Commission, St. Paul, Minn.
Missouri, State of, Jefferson City, Mo. (In principle.)
Monroe Acme Co., Chicago, Ill.
Moreland Motor Truck Co., Los Angeles, Calif.
New England Truck Co., Fitchburg, Mass.
New Orleans, Inc., Better Business Bureau of, New Orleans, La. (In principle.)
New York Testing Laboratories, Inc., New York, N. Y.
Oklahoma Department of Public Safety, Oklahoma City, Okla.
Oshkosh Motor Truck, Inc., Oshkosh, Wis.
Pacific Signal Co., Inc., Lynwood, Calif.
Packard Motor Car Co., Detroit, Mich.
Patzig Testing Laboratories, Des Moines, Iowa.
Pollak Corporation, Joseph, Dorchester, Boston, Mass.
Price Battery Corporation, Hamburg, Pa.
Protectall Motor Signal, Inc., Syracuse, N. Y.
Public Service Coordinated Transport, Newark, N. J.
Rich Foglite, Inc., Bellaire, Ohio.
Rochester Telephone Corporation, Rochester, N. Y.
S. & M. Lamp Co., Los Angeles, Calif.
Sears, Roebuck & Co., Chicago, Ill.
South Carolina State Highway Department, Columbia, S. C.
Sperry Gyroscope Co., Inc., Brooklyn, N. Y.
Trippe Manufacturing Co., Chicago, Ill.
Underwriters' Laboratories, Inc., Chicago, Ill.
United States Metal Products Co., New York, N. Y.
United States Testing Co., Inc., Hoboken, N. J.
Unity Manufacturing Co., Chicago, Ill.
Virginia, Division of Motor Vehicles of, Richmond, Va. (In principle.)
Walter Motor Truck Co., Ridgewood, Long Island, N. Y.
Ward Motor Vehicle Co., Mt. Vernon, N. Y.
Washington State Patrol, State Commission on Equipment, Olympia, Wash.
Western Auto Supply Co., Kansas City, Mo.
White Motor Co., The, Cleveland, Ohio.
Yankee Metal Products Corporation, Norwalk, Conn.

U. S. GOVERNMENT

Agriculture, Department of, Washington, D. C.
Federal Interdepartmental Safety Council, Washington, D. C.
Veterans' Administration, Washington, D. C.
War Department, Washington, D. C.

COMMERCIAL STANDARDS

CS No. Item

0-40. Commercial standards and their value to business (third edition).
1-42. Clinical thermometers (third edition).
2-30. Mopsticks.
3-40. Stoddard solvent (third edition).
4-29. Staple porcelain (all-clay) plumbing fixtures.
5-40. Pipe nipples; brass, copper, steel, and wrought iron.
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25-30. Special screw threads.
26-30. Aromatic red cedar closet lining.
27-36. Mirrors (second edition).
28-32. Sotton fabric tents, tarpaulins, and covers.
29-31. Ctaple seats for water-closet bowls.
30-31. Colors for sanitary ware.
31-38. Wood shingles (fourth edition).
32-31. Cotton cloth for rubber and pyroxylin coating.
33-32. Knit underwear (exclusive of rayon).
34-31. Bag, case, and strap leather.
35-31. Plywood (hardwood and eastern red cedar).
36-33. Fourdrinier wire cloth (second edition).
37-31. Steel bone plates and screws.
38-32. Hospital rubber sheeting.
39-37. Wool and part wool blankets (second edition). (Withdrawn as commercial standard, July 14, 1914).
40-32. Surgeons' rubber gloves.
41-32. Surgeons' latex gloves.
42-35. Fiber insulating board (second edition).
43-32. Grading of sulphonated oils.
44-32. Apple wraps.
45-40. Douglas fir plywood (domestic grades) (fourth edition).
46-40. Hosiery lengths and sizes (third edition).
47-34. Marking of gold-filled and rolled-gold-plate articles other than watch cases.
48-40. Domestic burners for Pennsylvania anthracite (underfeed type) (second edition).
49-34. Chip board, laminated chip board, and miscellaneous boards for bookbinding purposes.
50-34. Binders' board for bookbinding and other purposes.
51-35. Marking articles made of silver in combination with gold.

CS. No. Item

52-35. Mohair pile fabrics (100-percent mohair plain velvet, 100-percent mohair plain frieze, and 50-percent mohair plain frieze).
53-35. Colors and finishes for cast stone.
54-35. Mattresses for hospitals.
55-35. Mattresses for institutions.
56-41. Oak flooring (second edition).
57-40. Book cloths, buckrams, and impregnated fabrics for bookbinding purposes except library bindings (second edition).
58-36. Woven elastic fabrics for use in overalls (overall elastic webbing).
59-41. Woven textile fabrics—testing and reporting (third edition).
60-36. Hardwood dimension lumber.
61-37. Wood-slat venetian blinds.
62-38. Colors for kitchen accessories.
63-38. Colors for bathroom accessories.
64-37. Walnut veneers.
65-38. Wool and part-wool fabrics.
66-38. Marking of articles made wholly or in part of platinum.
67-38. Marking articles made of karat gold.
68-38. Liquid hypochlorite disinfectant, deodorant, and germicide.
69-38. Pine oil disinfectant.
70-41. Phenolic disinfectant (emulsifying type) (second edition) (published with CS71-41).
71-41. Phenolic disinfectant (soluble type) (second edition) (published with CS70-41).
72-38. Household insecticide (liquid spray type).
73-38. Old growth Douglas fir standard stock doors.
74-39. Solid hardwood wall paneling.
75-39. Automatic mechanical draft oil burners designed for domestic installations.
76-39. Hardwood interior trim and molding.
77-40. Sanitary cast-iron enameled ware.
78-40. Ground-and-polished lenses for sun glasses (second edition) (published with CS79-40).
79-40. Blown, drawn, and dropped lenses for sun glasses (second edition) (published with CS78-40).
80-41. Electric direction signal systems other than semaphore type for commercial and other vehicles subject to special motor vehicle laws (after market).
81-41. Adverse-weather lamps for vehicles (after market).
82-41. Inner-controlled spotlamps for vehicles (after market).
83-41. Clearance, marker, and identification lamps for vehicles (after market).
84-41. Electric tail lamps for vehicles (after market).
85-41. Electric license-plate lamps for vehicles (after market).
86-41. Electric stop lamps for vehicles (after market).
87-41. Red electric warning lanterns.
88-41. Liquid-burning flares.
89-40. Hardwood stair treads and risers.
90- . (Reserved for power shovels and cranes).
91-41. Factory fitted Douglas fir entrance doors.
92-41. Cedar, cypress, and redwood tank stock lumber.
93-41. Portable electric drills (exclusive of high frequency).
94-41. Calking lead.
95-41. Lead pipe.
96-41. Lead traps and bends.
97-42. Electric supplementary driving and passing lamps for vehicles (after market).

NOTICE.—Those interested in commercial standards with a view toward accepting them as a basis of everyday practice may secure copies of the above standards, while the supply lasts, by addressing the Division of Trade Standards, National Bureau of Standards, Washington, D. C.

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